

fissure) there are numerous connecting furrows; the whole surface of the brain is indeed divided up by a network of furrows with a development far in excess of anything met with in any other Rodent known to me. The very number and variety in direction and extent of these furrows make it quite easy to select some which can be identified with those upon the cerebral hemispheres of other Rodents. It is of course difficult, if not impossible, to come to any definite opinion as to the significance of the furrows upon this particular brain; if they are an accidental expression of the possibilities of modification in the brain-surface, it is noteworthy that the Rabbit departs very widely from the *Simplicidentati*. In the latter group the tendency upon the whole appears to be a stronger development of longitudinal furrows, thus resembling the *Ungulata*.

2. On a new Monkey from North-east Sumatra.

By R. COLLETT, C.M.Z.S.

[Received November 8, 1892.]

(Plate XLII.)

During the years 1888 and 1889, Herr Iversen, one of the preparators of the University Zoological Museum of Christiania, resided on the north-east side of Sumatra in order to collect specimens for the museum.

Through the kindness of two young Norwegians, the Messrs. Kamstrup, who are established there, one in the district of Langkat, the other in that of Deli, Herr Iversen, by living in turns on their estates, has been enabled to make a very important collection of the vertebrated animals of those districts. As the collection of Vertebrates is not yet completed, but is being steadily increased by Messrs. Kamstrup themselves, I intend, at a later opportunity, to give a general account of the whole of the materials furnished from these parts. On the present occasion, however, I wish to give a short diagnosis of a *Semnopithecus* which does not appear to have been previously described, and to which I have great pleasure in attaching my friend Mr. Oldfield Thomas's name.

SEMNOPITHECUS THOMASI, sp. n. (Plate XLII.)

Diagnosis.—A central occipital crest sloping at first backwards, but reversed on the occiput; a lower (indistinct) crest on each side of the forehead. Colour above dark grey, white underneath; hands and feet black. The cheeks, front, and forehead are white; a black stripe from the upper jaw to the ear, and a black central stripe on the forehead; the very old male darker, with the upper part of the head brownish black, front whitish.

Locality.—Langkat, N.E. Sumatra (7 specimens procured; University Museum, Christiania).

In form and general appearance this Monkey resembles the group

to which *S. femoralis* and *S. obscurus* belong, and appears to be closely related to *S. hosei* from North-west Borneo¹, described in 1889 by Mr. Thomas. The distribution of the colouring is in several respects identical with that of the latter, but there is a characteristic difference in the colouring of the cheeks, which do not, as in *S. hosei*, form a connected white area with the white forehead, but the area is broken by a black band from the edge of the mouth to the ear (in the young male and the female); in the old male the upper parts of the cheeks are nearly entirely black. The crest likewise does not slope evenly backwards as in *S. hosei*, but is reversed on the back of the head and runs upwards towards the centre of the crown.

From *S. femoralis*, to which especially the old male seems to be nearly related, it is distinguished by the white forehead and the wholly white under surface, both of head, body, and tail.

Size.—*The fully developed male* is about 620 millim. in length (head and body); the length of the tail is about 810 millim.

The fully developed female is somewhat smaller. The length of the body (head included) is about 600 millim. The length of the tail varies, but is about 650 millim.; in one specimen it was only 590 millim., whilst in another specimen of equal size it was 710 millim.

The hair-covering of the head.—The greatest height of the longitudinal crest on the crown is about 75 millim. in the old male, while in the female it is shorter, or from 42 to 58 millim. It juts out from the centre of the forehead at a short distance from the eyebrows. On the front of the head the crest slopes backwards; but on the back of the head it is directed forwards, there being a hair spiral behind each ear. The hairs on the crown thus converge and form a high point on the occiput. On the neck the hairs of the crest again slope backwards. On the sides of the forehead the hairs have likewise (especially in the females) a disposition to form a low crest which runs parallel to the central crest; the hairs here run together to a projecting point, where they meet the spiral behind the ear. There is scarcely any trace of a chin-tuft, as seen in *S. hosei* and other species.

Colouring.—The upper part of the body is of exactly the same shade as in *S. hosei*, being a uniform grey colour owing to each hair being black and white in turn (without, however, having the rings sharply defined). On the sides of the body and the hinder parts of the thighs the grey colouring shows a tendency to form a darker line in the transition to the white, especially in the older specimens.

The crest on the crown is black; the occiput is partly whitish. The forehead is white, and divided in the middle by a black stripe, which joins the crest. The side crest, which extends from behind the side of the eye to the ear, is black and encloses in front (behind the eye) a whitish space. The lower part of the cheeks and the underside of the head are also white, but a black stripe which stretches backwards to a pointed whisker always runs from the upper jaw

¹ Proc. Zool. Soc. 1889, p. 159, pl. xvi.

down to the underside of the ear. The undersides of the head (lips included) and the whole of the underside of the body are white or whitish. The limbs are coloured on their outer sides as on the back; the hands and feet are black. The inner sides of the limbs are white like the belly. The upperside of the tail is grey, like the back, the underside white; only the extreme point is greyish brown both above and below.

The iris is brown.

The old male is slightly darker than the younger male and the females; the top of the head, and the sides from the eyebrows down to about the angle of the mouth, are black or blackish. The forehead is whitish. The limbs are also darker downwards; the lower part of the hind limb is mostly black.

The young one, in silky dress, is whitish. The head is almost entirely white, and likewise the hind limbs; the hands and feet are whitish; the back, shoulders, and uppersides of the fore limbs, as well as the upperside of the tail, are greyish (almost like the old ones); in the centre of the back there is a whitish patch.

The crest on the crown already forms a distinct point on the occiput, whilst the side crests and whiskers are barely discernible. Along the neck runs a black central stripe.

The distal portion of the tail is somewhat more hairy than the proximal.

The Skull.

	Old male. millim.	Old female. millim.
Greatest length	104	97 *
Zygomatic breadth	80	74
Distance from <u>i</u> ¹ to anterior margin of <i>foramen magnum</i>	73	63
Intertemporal constriction	46	46
Breadth across face	64.5	65
Breadth of brain-case	69	63
Interorbital breadth	8	8
Breadth of orbit	26	25
Height of orbit	23	21
Breadth of nasal opening	11	10
Height of nasal opening	18	17
Length of nasal bone	12	10.5
Length of palate	34	30
Breadth of palate inside <u>m</u> ¹	22	20
Combined length of upper pp. and mm. .	27	27
Combined length of upper molars	18	18
Height of upper canine	20	9 †

The zygomatic arch is prominent and strong. The breadth across the zygomata is equal in the female to the distance from the posterior margin of *foramen magnum* to the base of i¹; in the male

* Approximate length, the *os occipitale* being broken.

† Very much worn.

(in which the snout is proportionally longer) to the centre of the *foramen incisivum*.

Intertemporal constriction strong ; it equals the distance from the *foramen magnum* to the centre or hinder edge of \underline{m}^1 .

The *nasals* are slender and straight, or even somewhat concave ; above them the interorbital space is sunk inwards.

The *bullæ* are low, almost flattened in the female, but rather more elevated in the old male.

The canines in the male are particularly long.

The lower jaw is almost uniformly high throughout its length from \underline{p}^1 to \underline{m}^3 .

The *occipital* is strongly rounded behind, and does not show a trace of any transverse crest.

The *orbits* are wide, with a distinct angle above on the outer side ; their height is less than their breadth.

In the young one the peculiarities of the skull are still but little prominent. The *bullæ* are proportionally more swollen than in the old ones.

Habits.—These Monkeys were only met with by Herr Iversen in the Langkat district, and were not observed in Deli. They were fairly numerous on several of the estates, especially at Glen Bervie and Bekri. Their haunts were in the highest trees, and they never descended of their own accord to the ground or visited the rice-fields. Herr Iversen saw, however, one wounded individual take to flight on the ground. They always live in companies, and inhabit the dry spots in the thickest parts of the forests. They appear to be non-migratory, and may be met with at all times of the year in almost the same parts of the forest. They hardly ever visited the more open places, but kept to the highest tree-tops, where they moved about with the greatest ease, and made the most astonishing leaps through the branches. They were on the whole excessively shy ; if they found themselves noticed, they endeavoured at once to hide themselves, and the mothers would leave their young sitting on the branches whilst they themselves sought shelter in the tree-tops. When hunted, they all took to flight in the same direction, so that the companies were not dispersed.

The companies appeared to consist chiefly of full-grown individuals, and young ones were but seldom seen. An occasional half-grown individual, however, might be noticed following the old ones ; babies were not often seen, but these are, on the whole, more difficult to observe, as they are carried by the mother under her belly.

The young one brought home was noticed through the mother deserting it, after which it began to shriek. They have a very penetrating cry, which they generally utter in chorus after one has given the note. In the individuals which have been examined no fœtus has ever been found. Possibly the pregnant females and the younger ones hide themselves more closely.

They were seen in activity only in the daytime, and were not heard to cry at night. They lived, it appeared, only on fruits. In their stomachs was chiefly found the soft pulp of a fruit belonging

